WHAT IS CLAIMED IS:

1. A pluripotent embryonic-like stem cell, derived from non-embryonic or postnatal animal cells or tissue, capable of self-renewal and capable of differentiation to cells of endodermal, ectodermal and mesodermal lineages.

2. The stem cell of Claim 1 which is a human cell.

3. The stem cell of Claim 1 which is isolated from the non-embryonic tissue selected from the group of muscle, dermis, fat, tendon, ligament, perichondrium, periosteum, heart, aorta, endocardium, myocardium, epicardium, large arteries and veins, granulation tissue, peripheral nerves, peripheral ganglia, spinal cord, dura, leptomeninges, trachea, esophagus, marrow, stomach, small intestine, large intestine, liver, spleen, pancreas, parietal peritoneum, visceral peritoneum, parietal pleura, visceral pleura, urinary bladder, gall bladder, kidney, associated connective tissues or bone marrow.

4. A pluripotent endodermal stem cell derived from the stem cell of Claim 1.

5. A pluripotent mesenchymal stem cell derived from the stem cell of Claim 1.

6. A pluripotent ectodermal stem cell derived from the stem cell of Claim 1.

7. A endodermal, ectodermal or mesodermal lineage-committed cell derived from the stem cell of Claim 1.

8. A culture comprising:

(a) Pluripotent embryonic-like stem cells, derived from postnatal animal cells or tissue, capable of self-renewal and capable of differentiation to cells of endodermal, ectodermal and mesodermal lineages; and

(b) a medium capable of supporting the proliferation of said stem cells.

9. The culture of Claim 8, further comprising a proliferation factor or lineage commitment factor.

10. The culture of Claim 8 wherein said stem cells are human cells.

11. A method of isolating an pluripotent embryonic-like stem cell, comprising the steps of:

(a) obtaining cells from a postnatal animal source;

(b) slow freezing said cells in medium containing 7.5% (v/v) dimethyl sulfoxide until a final temperature of -80° C is reached; and

(c) culturing the cells.

12. A method of isolating a clonal pluripotent embryonic-like stem cell line, comprising the steps of:

(a) obtaining cells from a postnatal animal source;

(b) slow freezing said cells in medium containing 7.5% (v/v) dimethyl sulfoxide until a final temperature of -80° C is reached;

(c) culturing the cells;

(d) diluting said cultured cells to clonal density;

(e) culturing said diluted cells;

(e) propogating those cultures having a single cell.

13. A clonal pluripotent embryonic-like stem cell line developed by the method of Claim 12.

14. The stem cell of Claim 1 genetically engineered to express a gene or protein of interest.

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15. A method of producing a genetically engineered pluripotent embryonic-likestem cell comprising the steps of:

(a) transfecting pluripotent embryonic-like stem cells with a DNA construct comprising at least one of a marker gene or a gene of interest;

(b) selecting for expression of the marker gene or gene of interest in the pluripotent embryonic-like stem cells;

(c) culturing the stem cells selected in (b).

16. A genetically engineered pluripotent embryonic-like stem cell produced by the method of Claim 15.

17. The stem cell of Claim 16 which is a human cell.

18. A method for detecting the presence or activity of an agent which is a lineage-commitment factor comprising the steps of:

A. contacting the stem cells of Claim 1 with a sample suspected of containing an agent which is a lineage-commitment factor; and

B. determining the lineage of the so contacted cells by mRNA expression, antigen expression or other means;

wherein the lineage of the contacted cells indicates the presence or activity of a lineage-commitment factor in said sample.

19. A method of testing the ability of an agent, compound or factor to modulate the lineage-commitment of a lineage uncommitted cell which comprises

A. culturing the stem cells of Claim 1 in a growth medium which maintains the stem cells as lineage uncommitted cells;

B. adding the agent, compound or factor under test; and

C. determining the lineage of the so contacted cells by mRNA expression, antigen expression or other means.

20. An assay system for screening agents, compounds or factors for the ability to modulate the lineage-commitment of a lineage uncommitted cell, comprising:

A. culturing the stem cells of Claim 1 in a growth medium which maintains the stem cells as lineage uncommited cells;

B. adding the agent, compound or factor under test; and

C. determining the lineage of the so contacted cells by mRNA expression, antigen expression or other means.

21. A method for detecting the presence or activity of an agent which is a proliferation factor comprising the steps of:

A. contacting the stem cells of Claim 1 with a sample suspected of containing an agent which is a proliferation factor; and

B. determining the proliferation and lineage of the so contacted cells by mRNA expression, antigen expression or other means;

wherein the proliferation of the contacted cells without lineage commitment indicates the presence or activity of a proliferation factor in said sample.

22. A method of testing the ability of an agent, compound or factor to modulate the proliferation of a lineage uncommitted cell which comprises

A. culturing the stem cells of Claim 1 in a growth medium which maintains the stem cells as lineage uncommited cells;

B. adding the agent, compound or factor under test; and

C. determining the proliferation and lineage of the so contacted cells by mRNA expression, antigen expression or other means.

23. An assay system for screening agents, compounds or factors for the ability to modulate the proliferation of a lineage uncommitted cell, comprising:

A. culturing the stem cells of Claim 1 in a growth medium which maintains the stem cells as lineage uncommited cells;

B. adding the agent, compound or factor under test; and

C. determining the proliferation and lineage of the so contacted cells by mRNA expression, antigen expression or other means.

24. A method of transplanting pluripotent embryonic-like stem cells in a host comprising the step of introducing into the host the stem cells of Claim 1.

25. A method of providing a host with purified pluripotent embryonic-like stem cells comprising the step of introducing into the host the pluripotent embryonic-like stem cells of Claim 1.

26. A method of *in vivo* administration of a protein or gene of interest comprising the step of transfecting the pluripotent embryonic-like stem cell of Claim 1 with a vector comprising DNA or RNA which expresses a protein or gene of interest.

27. A method of preventing and/or treating cellular debilitations, derangements and/or dysfunctions and/or other disease states in mammals, comprising administering to a mammal a therapeutically effective amount of pluripotent embryonic-like stem cells, or cells or tissues derived therefrom.

28. A method of tissue repair or transplantation in mammals, comprising administering to a mammal a therapeutically effective amount of pluripotent embryonic-like stem cells, or cells or tissues derived therefrom.

29. A method of preventing and/or treating cellular debilitations, derangements and/or dysfunctions and/or other disease states in mammals, comprising administering to a mammal a therapeutically effective amount of a endodermal, ectodermal or mesodermal lineage-committed cell derived from the stem cell of Claim 1.

30. A method of tissue repair or transplantation in mammals, comprising administering to a mammal a therapeutically effective amount of a endodermal, ectodermal or mesodermal lineage-committed cell derived from the stem cell of Claim 1.

31. A pharmaceutical composition for the treatment of cellular debilitation, derangement and/or dysfunction in mammals, comprising:

A. a therapeutically effective amount of pluripotent embryonic-like stem cells, or cells or tissues derived therefrom; and

B. a pharmaceutically acceptable medium or carrier.

32. The pharmaceutical composition of Claim 28 further comprising a proliferation factor or lineage-commitment factor.